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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,129	01/26/2006	Sang Woon Suh	1630-0488PUS1	2627

2292 7590 05/11/2011

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EXAMINER	
JONES, HEATHER RAE	

ART UNIT	PAPER NUMBER
2481	

NOTIFICATION DATE	DELIVERY MODE
05/11/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/543,129	SUH ET AL.	
	Examiner	Art Unit	
	HEATHER R. JONES	2481	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/5/2011*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 5, 2011 have been fully considered but they are not persuasive.

The Applicant argues that neither Tozaki et al. nor Weijenbergh et al. disclose that “the control information including a playback speed information and a maximum transfer rate information specifying a maximum transfer rate needed by an application" and "the playback speed information is distinguished from the maximum transfer rate information". The Examiner respectfully disagrees. Tozaki et al. discloses in col. 14, lines 41-48 the DVD having lowest reading rate information that is required to reproduce the whole portion of one DVD at a same linear velocity, which means that the reading rate information can read on the playback speed information. Weijenbergh et al. discloses in Fig. 7 in byte 1 the disc size and maximum transfer rate (col. 8, lines 19-24). Furthermore, Weijenbergh et al. discloses in Fig. 7 bytes 32 and 33 the reference and maximum recording velocities (col. 9, lines 3-15) that are used to help determine the maximum reading powers disclosed in bytes 36-41 (col. 9, lines 23-51). Therefore, the playback speed information is made up of the reference and maximum recording velocities along with the maximum reading power, which are all clearly distinguished in Fig. 7 since both sets of information are stored on the disc. Therefore, the combination of Tozaki et al. in view of Weijenbergh et al.

discloses the claim limitations as discussed above and the rejection is maintained.

2. Please note the change in examiner. All future correspondence should be directed to Heather R. Jones whose information is provided at the end of this Office Action.

35 USC § 101

3. The method claims 22-28 and 36-42 are considered to be statutory because they have been amended to be tied to an apparatus (the pick-up).

4. The medium claims 29-35 are considered to be statutory even though the words “non-transitory” are not written into the claim limitations because the only embodiment of the invention is drawn toward an optical disc reproducing apparatus (see page 6, lines 7-12 and figure 6), and the recording medium utilized by this apparatus is only referred to as either a BD-ROM (see e.g. page 6, lines 15-25) or a BD-RE (see e.g. figure 1 and its associated text on pages 1-2). Furthermore, there is no disclosure of the recording medium being drawn to "...or the like," "such as...," or anything else that may be interpreted as comprising a signal per se. Therefore, the examiner maintains the claim is drawn toward statutory media only.

5. The Apparatus claims 43-49 are considered to be statutory because the specification does not disclose that the apparatus can be implemented solely using software.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 22-24, 28-31, 35-38, 42-45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al. (US Patent 7,398,010) in view of Weijenbergh et al. (US Patent 7,248,555).

a. Regarding claim **22**, Tozaki et al. discloses **a method of recording data on a recording medium** (see figure 8 as well as column 16, lines 14-17: "...for recording the above mentioned...information onto the DVD..."); **the method comprising: (a) recording a control information on a lead-in area of the recording medium using a pick-up (Fig. 9 – optical pick-up (80)), the control information including a playback speed information, a playback speed by the playback speed information is for suitably reproducing a main data** (see column 14, lines 46-48: "...the lowest reading rate information indicating this lowest reading rate is recorded on a predetermined position of each DVD..."; as well as "control data 201" and "disk size and lowest reading rate 212" in figures 5, 6, and 7, wherein the playback speed of the playback speed information is for suitably reproducing a main data because the data would not be successfully reproduced if not read at the lowest reading rate), **and the playback speed information is recorded in one byte long field and is represented by a**

multiplication of a basic speed information (see column 14, lines 46- 67: "The lowest reading rate is able to be set to either one of the maximum value of the reading rate and a reading rate equal to the maximum value multiplied by ½n...,,; column 15, lines 14-17: "The physical format information 202 also includes one byte information 212 indicating the disk size and the lowest reading rate."; as well as figures 6 and 7 which disclose "disk size and lowest reading rate 212" comprising one byte); **and (b) recording main data in a main data area of the recording medium using the pick-up** (see column 16, lines 28-30: "Record information R, which is a raw material such as audio information, video information etc. to be recorded on the DVD..."). However, Tozaki et al. fails to disclose **a maximum transfer rate information specifying a maximum transfer rate needed by an application, wherein the maximum transfer rate information is represented by a bit rate, the playback speed information is distinguished from the maximum transfer rate information**.

Referring to the Weijenbergh et al. reference, Weijenbergh et al. discloses a method of recording data on a recording medium, wherein the method **discloses a maximum transfer rate information specifying a maximum transfer rate needed by an application, wherein the maximum transfer rate information is represented by a bit rate, the playback speed information is distinguished from the maximum transfer rate information** (see column 14, lines 8-18: "Byte 1 - Disc size and maximum transfer rate...0000: a maximum transfer rate of 2.52Mbits/s, 0001 : a maximum transfer rate of 5.04 Mbits/s...";

see also figure 7 which discloses byte 1 comprising "disc size" which has been shown to comprise maximum transfer rate information as well as bytes 32-33 which show referenced and maximum recording velocities).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Tozaki et al. to include the teachings of Weijenbergh et al., for the purpose of identifying various reproduction rates needed by an application (Weijenbergh et al.: column 14, lines 13-14).

b. Regarding claim **23**, Tozaki et al. in view of Weijenbergh et al. discloses the limitations as previously disclosed in claim 22 including that **the playback speed information and the maximum transfer rate information are recorded within a control information table allocated in the lead-in area on the recording medium** (Tozaki et al.: see column 14, lines 46-48: "...the lowest reading rate information indicating this lowest reading rate is recorded on a predetermined position of each DVD..."; as well as "control data 201" and "disk size and lowest reading rate 212" in figures 5, 6, and 7, wherein the playback speed of the playback speed information is for suitably reproducing a main data because the data would not be successfully reproduced if not read at the lowest reading rate; Weijenbergh et al.: see column 14, lines 8-18: "Byte 1 - Disc size and maximum transfer rate...0000: a maximum transfer rate of 2.52Mbits/s, 0001 : a maximum transfer rate of 5.04 Mbits/s..."; see also figure 7 which discloses byte 1 comprising "disc size" which has been shown to comprise maximum

transfer rate information as well as bytes 32-33 which show referenced and maximum recording velocities).

c. Regarding claim **24**, Tozaki et al. in view of Weijenbergh et al. discloses the limitations as previously disclosed in claims 22 and 23 including that **the control information table further includes a recording medium size and version information specifying a medium size and version number respectively, a medium structure information specifying a number of recorded layers and a type of the recoded layers, and a recording density information associated with recording density of the recording medium** (Tozaki et al.: see figure 6 which discloses disk size, book type and version, disk structure and recording density all being recorded as part of "physical formation information 202").

d. Regarding claim **28**, Tozaki et al. in view of Weijenbergh et al. discloses the limitations as previously disclosed in claim 22 including that **the playback speed information is determined by referring to a transfer rate of the main data** (Tozaki et al.: column 14, lines 41-59: ”The lowest reading rate is able to be set to either one of the maximum value of the reading rate and a reading rate equal to the maximum value multiplied by y2n...Here, for example, it is assumed that one of lO.08Mbps...as the maximum value...5.04Mbps as the reading rate equal to the maximum value multiplied by ½...and 2.52 Mbps as the reading rate equal to the maximum value multiplied by ¼...can be selected.").

e. Regarding claims **29-31** and **35**, these are recording medium claims corresponding to the method claims 22-24 and 28. Therefore, claims 29-31 and 35 are analyzed and rejected as previously discussed with respect to claims 22-24 and 28. Furthermore, the recording medium can be seen Fig. 1 of the Tozaki et al. reference.

f. Regarding claims **36-38** and **42**, these are method of reproducing claims corresponding to the method of recording claims 22-24 and 28. Therefore, claims 36-38 and 42 are analyzed and rejected as previously discussed with respect to claims 22-24 and 28. Furthermore, Tozaki et al. discloses reproducing the data on the recording medium in the third section of the disclosure (col. 18, line 13-col. 26, line 4 - this section describes the whole playback process).

g. Regarding claims **43-45** and **49**, these are apparatus claims corresponding to the method claims 36-38 and 42. Therefore, claims 43-45 and 49 are analyzed and rejected as previously discussed with respect to claims 36-38 and 42. Furthermore, the apparatus performs the method disclosed in claims 36-38 and 42 and the apparatus can be seen in Fig. 9 of the Tozaki et al. reference, and the reader can be read on the optical pickup (80) and the playback system can be read on the entire system shown in Fig. 9 that is controlled by the system controller (100).

8. Claims 25, 26, 32, 33, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al. in view of Weijenbergh et al. as applied to claims 22, 29, 36, and 43 above, and further in view of Mishima et al. (U.S. Patent 7,343,083).

a. Regarding claim **25**, Tozaki et al. in view of Weijenbergh et al. discloses the limitations as previously disclosed in claim 22, but fail to disclose that **the playback speed information represents 1.2 or 1.5 times of the basic speed information**.

Referring to the Mishima et al. reference, Mishima et al. discloses a digital video signal record and playback device and method for selectively reproducing desired video information from an optical disk (see title), **wherein the playback speed represents 1.2 or 1.5 times of the basic speed information** (see column 67, lines 31-34: "...the rate control of the variable rate is set, in the beginning, to discrete rate goals such as 1Mbits, 1.5Mbits, 2Mbits, 2.5Mbits, 3Mbits, or the like so that each of the rate information in all the GOP is recorded on a disc...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Tozaki et al. in view of Weijenbergh et al. to include the teachings of Mishima et al., for the purpose of facilitating trick-play playback modes (Mishima et al.: column 11, lines 40-52: "...perform the skip search...perfect playback picture...").

b. Regarding claim **26**, Tozaki et al. in view of Weijenbergh et al. discloses the limitations as previously disclosed in claim 22, but fail to disclose that **the playback speed information is determined such that the main data on the recording medium is reproduced at 1.2 or 1.5 times of the basic speed information**.

Referring to the Mishima et al. reference, Mishima et al. discloses a digital video signal record and playback device and method for selectively reproducing desired video information from an optical disk (see title), **wherein the playback speed information is determined such that the main data on the recording medium is reproduced at 1.2 or 1.5 times of the basic speed information** (see column 67, lines 31-34: "...the rate control of the variable rate is set, in the beginning, to discrete rate goals such as 1Mbits, 1.5Mbits, 2Mbits, 2.5Mbits, 3Mbits, or the like so that each of the rate information in all the GOP is recorded on a disc...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Tozaki et al. in view of Weijenbergh et al. to include the teachings of Mishima et al., for the purpose of facilitating trick-play playback modes (Mishima et al.: column 11, lines 40-52: "...perform the skip search...perfect playback picture...").

c. Regarding claim **32**, the grounds for rejecting claim 25 apply in its entirety.

d. Regarding claim **33**, the grounds for rejecting claim 26 apply in its entirety.

e. Regarding claim **39**, the grounds for rejecting claim 25 apply in its entirety.

f. Regarding claim **40**, the grounds for rejecting claim 26 apply in its entirety.

g. Regarding claim **46**, the grounds for rejecting claim 25 apply in its entirety.

h. Regarding claim **47**, the grounds for rejecting claim 26 apply in its entirety.

9. Claims 27, 34, 41, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al. in view of Weijenbergh et al. as applied to claims 22, 29, 36, and 43 above, and further in view of Kojima (U.S. Patent 5,953,484).

a. Regarding claim **27**, Tozaki et al. in view of Weijenbergh et al. discloses the limitations as previously disclosed in claim 22, but fail to disclose that

Referring to the Kojima reference, Kojima discloses a video transmitting apparatus, video data receiving apparatus and video data transmitting and receiving system (see title), **wherein the playback speed information is determined such that the main data on the recording medium is reproduced at a transfer rate of 36Mbps, 40Mbps, or faster** (see column 7, lines 44-47: "...the data storage device (204) reproduces and outputs the once recorded video data at a transmission rate of the satellite communication line, for example, 40Mbps...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Tozaki et al. in view of Weijenbergh et al. to include the teachings of Kojima, for the purpose of transmitting video data at a higher bit-rate and thus a higher quality.

b. Regarding claim **34**, the grounds for rejecting claim 27 apply in its entirety.

c. Regarding claim **41**, the grounds for rejecting claim 27 apply in its entirety.

d. Regarding claim **48**, the grounds for rejecting claim 27 apply in its entirety.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Honjo et al. (U.S. Patent 7,415,188) discloses a method of recording data on a recording medium, wherein both the reproducing speed and the maximum transfer rate of the HDD is known (col. 18, line 63 – col. 19, line 8).

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on 571-272-7646. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2481

HRJ
May 3, 2011

/Peter-Anthony Pappas/
Supervisory Patent Examiner, Art Unit 2481